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THESIS

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the Standard Accounting, Budgeting
and Reporting System (SABRS) in the
4th Marine Division

by

David E. Melchar

December, 1980

Thesis Advisor:

W.H. Skierkowski

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An Analysis of the Implementation of the
Standard Accounting, Budgeting and Reporting
System (SABRS) in the 4th Marine Division

by

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Major, United States Marine Corps
B.S., Roger Williams College, 1976

Submitted in partial fulfillment of the
requirements for the degree of

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from the

ABSTRACT

The 4th Marine Division, a member of the U.S. Marine Corps' reserve air/ground team, is hindered in managing its financial resources by unavoidable situations peculiar to the reserve structure and by problems associated with the financial control system presently utilized by the division. A proposed single financial system, the Standard Accounting, Budgeting and Reporting System (SABRS), scheduled for implementation throughout the Marine Corps during FY81 has the potential to remedy many problems. However, the current implementation plan for the division provides extremely limited access to SABRS' benefits. This thesis examines the division's present system, the tenets of SABRS, and the SABRS' implementation plan for the division. Finally, an analysis of two alternative implementation plans for the division results in the identification and recommendation of a plan which provides the division full SABRS benefits at a cost lower than the present system or the current implementation plan.

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I. INTRODUCTION

A. THE 4TH MARINE DIVISION AS A MEMBER OF THE MARINE CORPS RESERVE AIR/GROUND TEAM

The world political situation in 1980 and as projected through 1985 poses a variety of challenges for the Marine Corps as a member of the Navy-Marine team. The Commandant of the Marine Corps, General Robert H. Barrow, stated before a subcommittee of Congress in February, 1980, that,

...the Marine Air/Ground Task Forces (MAGTF's) embarked in Navy amphibious shipping constitute the Nation's premier capability for the forcible entry of combatant forces into a hostile environment. The capability to execute an amphibious assault remains an absolute requirement. [Ref. 1]

The unique ability of the MAGTF to project its power ashore is a result of the self-contained ground forces and aviation elements provided within the Marine Corps structure. This multi-faceted force encompassing combat, combat support, and service support components receives immeasurable benefit from continual joint air/ground planning and training. The Marine Corps currently possesses three MAGTFs, as provided by law, with the capability of adding a fourth task force through the mobilization of the Marine Corps Reserve, consisting of the 4th Marine Division and 4th Marine Aircraft Wing. In his statement to Congress, General Barrow went on to attest that,

...the increased versatility of the Reserve is a strength we can safely rely upon to further solidify our readiness posture. [Ref. 1]

As a key member of this reserve task force, the 4th Marine Division provides the combat forces and support to conduct the ground phase of operations designed to capture a target objective.

The manpower and equipment structure of the 4th Marine Division purposely parallels that of the three active duty divisions within the Marine Corps. The major difference between the reserve and active divisions is that the Marines within the 4th Division are essentially citizen soldiers. They are members of the civilian community who function as Marines in addition to their full-time civilian occupations. A further difference is the dispersion of reserve Marines throughout the United States in approximately 196 small self-supporting units of the 4th Division in 163 cities within 45 states and the District of Columbia. This necessary dispersion of units and decentralization of responsibilities provide the basis for considerable logistical and administrative problems for the division and are primary differences between the reserve and regular divisions. A nucleus of active duty Marines, including the Commanding General, a portion of the division general and special staff, and members of Inspector-Instructor staffs, which provide administrative and logistical support to each reserve unit, completes the division's manpower structure. [Ref. 2, pp. 21-23]

A measure of the reserves' value is evident in the Commandant's expressed goal that 4th Marine Division ground units of battalion size or smaller be able to mobilize within 30 days, fully capable of exerting their combat fighting power wherever and whenever called upon. [Ref. 4]

B. OBJECTIVES

In a climate of scarce resources the emphasis on maximum efficiency, while maintaining or improving effectiveness, has never been greater than it is today. Throughout the Marine Corps and the Department of Defense, financial management has become not only a requirement but a necessity. This thesis initially addresses the performance of the centralized financial control system within the 4th Marine Division. It then goes on to assess the impact upon the division of the fully automated Standard Accounting, Budgeting and Reporting System (SABRS) proposed for implementation in the Marine Corps during FY81.

The two main objectives of this thesis are to assess the effectiveness and efficiency of the financial control system utilized by the 4th Marine Division and to examine the impact of SABRS upon the division. In the process, the ability of the division's financial control system to operate amid the administrative, financial and operational difficulties peculiar to this organization will be analyzed. Next, the degree to which SABRS will provide solutions to and

improve the current system will be ascertained. Finally, alternative methods of implementation of SABRS within the division will be examined in an attempt to provide maximum benefit from the proposed single financial system.

C. GENERAL APPROACH AND METHOD OF THE THESIS

The two distinct areas being examined - the financial control system within the 4th Marine Division and SABRS - require a thorough review in order to provide for proper analysis. In addition, certain academic and professional opinions and models are used to provide an optimal structure for a financial control system.

The research is divided into three areas:

1. literature search,
2. data collection (4th Marine Division directives, copies of division financial reports, and the ADS Development Plan for SABRS, and other statistical documentation), and
3. interviews with personnel from inspector-instructor staffs, the division general staff, and Headquarters Marine Corps.

D. THESIS CHAPTER SUMMARY

This first chapter briefly introduces the reader to the 4th Marine Division and some of its inherent management problems and then presents the author's objectives and research method.

Chapter II examines the 4th Marine Division as a member of the Marine Corps reserve air/ground team and its role consistent with National Military Reserve Policy.

Chapter III examines the framework of a financial control system and outlines the statutory and regulatory requirements imposed on financial systems within the Federal Government.

In Chapter IV, the financial control system currently utilized by the 4th Marine Division is examined.

Chapter V reviews SABRS, its background, operation and proposed implementation within the Marine Corps and the 4th Marine Division. An analysis of alternative methods of implementation of the system within the division is also provided.

Finally, in Chapter VI, the author summarizes his findings, and makes recommendations for future consideration.

II. THE 4TH MARINE DIVISION AND THE MARINE CORPS RESERVE

A. NATIONAL MILITARY RESERVE POLICY

The recognition of the deterrent effect of a viable military force to potential adversaries is not a recent revelation. George Washington is credited with noting that,

To be prepared for war is one of the most effectual means of preserving peace. [Ref. 3, p. 1]

This appreciation of military parity is no less understood by today's national leaders within the United States. At the same time, however, this same leadership recognizes that, given existing national priorities, it is not practicable nor economically feasible to maintain an active military force sufficient to meet all of the Nation's foreign policy objectives and commitments. This is particularly true regarding NATO commitments in the event of a conventional war with the Warsaw Pact nations. A significant advantage is enjoyed over the combined NATO allies by the Warsaw Pact nations. This advantage encompasses both the numbers of military personnel and conventional land warfare equipment. In response to the conventional war threat in Europe it has been determined that a NATO reaction requires:

1. a heavy and rapid interjection of U.S. ground forces and equipment to Europe
2. a heavy and rapid commitment of U.S. tactical air power to Europe

3. maintenance of sea-lanes of communications between the United States and Europe

4. control of the Western Mediterranean. [Ref. 4, pp. 2-3]

It is recognized that the active components of the United States alone cannot satisfy these demands. The President's primary means of rapidly supplementing the country's conventional war combat and combat support capability is with the Ready Reserve. [Ref. 4, p. 3] The reduced active force structure and strength which have resulted from the implementation of the All-Volunteer Force further accentuates the need for the capability of the Reserve Forces. The existence of these Reserve Forces is not solely a discretionary act by the President, but is founded in Public Law. As stated in title 10, United States Code, Section 262,

...the national mission of the Guard and Reserve is to provide trained and equipped units and individuals to supplement and augment the Active Components of the Armed Forces in time of war or national emergency.

[Ref. 4, p. 2]

The objectives of the Guard and Reserve include the assignment of wartime missions to all units and individuals of the Ready Reserve. Additionally, Guard and Reserve units are to be organized, manned, and trained so as to integrate effectively and efficiently alongside similar units of the Active Forces upon mobilization. Units must be capable of moving to a theater of war within a few days after Mobilization Day (M-Day) as required by theater commanders and as shipping permits. [Ref. 4, p. 2]

Two basic categories comprise the Reserve Forces - National Guard units and Reserve units. Only the Army and Air Force, however, possess both of these two distinct types of organizations. The Army National Guard and Air Force National Guard are administered by and are under the control of the individual states and their respective governors, and have both state and federal missions. Guard units might furnish domestic support in civil projects or supply a multitude of services during state emergencies. Their wartime missions provide for defense of the Continental United States and, in accordance, with contingency war plans, the augmentation of active components. Once placed in federal service, Guard units come under the command of the active component with whom they are mobilized. [Ref. 4, p. 4]

Unlike National Guard units, Reserve units of the Army, Navy, Air Force, and Marine Corps are permanently under federal supervision and control. The units and individuals within Reserve units are equipped and trained under the Total Force concept, providing for parallel structuring and training relative to Active Forces so as to facilitate integration upon mobilization. Once mobilized, Reserve units would become a part of the expanding Active Forces and provide for individual replacement of personnel, as required. Although the several services have essentially similar mobilization plans for their Reserve units, the Marine Corps, with its division/wing team (DWT), provides a distinct advantage in the capabilities of its Reserve Forces. [Ref. 4, p. 4]

The organic air and ground combat, combat support, and service support units can be organized to provide balanced air ground teams from brigade to DWT to reinforce already committed Marine Amphibious Forces (MAF's) or for service with the fleets. The combat self-sufficiency of this integrated air/ground concept makes the Marine Corps Reserve a truly unique asset in the Nation's arsenal of deterrent forces.

B. BACKGROUND AND HISTORY OF THE MARINE CORPS RESERVE AND THE 4TH MARINE DIVISION

When the Marine Corps Reserve was established by Congress on August 29, 1916, its strength was three officers and 33 enlisted men. An additional enlisted contingent in the Naval Militia, Marine Corps Branch, within several states brought the total to 964 Marines. During 1917, the Naval Militia, which had also been known as the National Naval Volunteers, lost its separate identity. By the end of World War I the strength of the Marine Corps Reserve, including all classes of reserves and the National Naval Volunteers reached 6,773. [Ref. 5, p. 35]

Most Marines who participated in World War I served in the 4th Infantry Brigade, an all-Marine Brigade which was part of the Army's Second Division. This division was commanded at one point by Marine Major General John A. Lejeune. As a component of the 2nd Division, the 4th Marine

Brigade earned world renown in four major engagements, the Aisne defensive, the Aisne-Marne offensive, the St. Mihiel offensive and the Meuse-Argonne offensive. A smaller engagement of no less prominence was the battle for the strategic Belleau Wood. [Ref. 3, p. 9]

The conclusion of hostilities after World War I and the peace of the twenties gave way to a relaxed national vigilance, and little attention was given to the reserves. A major problem was the lack of communication between the Marine Corps and reserves, partially due to the fact that no separate office existed at Headquarters Marine Corps to oversee reserve affairs. Activity in the reserves was resurrected by Congressional action in 1925, which authorized funds for reserve administration and maintenance. Reservists were placed in a pay status, met weekly for drill, and were subject to call for 15 days of active duty per year. Limited funds, however, restricted access to suitable training buildings and armories. Whatever facilities were secured during this period, through begging or private construction by reservists themselves, were at no additional expense to the government. The reserve program also received its much sought after organization at this time. The reserves were broken down into two distinct categories, the Fleet Marine Corps Reserve (FMCR) and the Volunteer Marine Corps Reserve (VMCR). The FMCR closely approximated today's Organized Reserve with members attending drills and summer camps.

The VMCR was basically a paper reserve, available for call up only in the event of war or national emergency. The program was administered through four reserve areas corresponding in name and boundaries to the existing regular recruiting divisions. Also, as a result of the 1925 Congressional action, a separate entity in the Office of the Commandant was set up to provide advice on reserve matters and oversee the administration of reserve affairs. [Ref. 3, pp. 22-25]

When an economy-minded Congress trimmed the national budget in 1931, reserve pay for drill and administration of units was discontinued. The reserve remained inactive, except for a few Marines who continued to drill "for the love of the game," until 1934. In this year, funds again became available. [Ref. 3, pp. 38-40]

In 1937, another significant organizational change took place. Regimental and brigade staffs utilized up to this point to coordinate and control subordinate reserve units, were replaced by Fleet Reserve Battalions. These battalions were organized as independent units reporting directly to Headquarters Marine Corps. A reserve battalion commander and an Inspector-Instructor were emplaced to provide guidance and direction to each battalion. The Inspector-Instructor, unlike the battalion commander, was a regular officer responsible to the Major General Commandant (an early title for the Commandant, based on his rank at that time) for the compliance of the battalion with applicable

regulations and requirements. Additional assistance was provided through the Division of Reserves within the Personnel Department at Headquarters Marine Corps and through reserve area coordinators. These coordinators were senior fleet Marine Corps reserve officers who operated in the geographical areas identified as Reserve Areas. [Ref. 6, pp. 32-33]

By 1935, 13 reserve battalions were organized and a total reserve strength of 695 officers and 7,500 enlisted men, encompassing both aviation and ground Marines, was authorized. Further changes in the organization of the reserves were made in 1937 when the Reserve Areas were discontinued and replaced by Reserve Districts. Each district was commanded by a regular Marine officer, usually the commanding officer of the Marine Barracks most conveniently located with regard to the headquarters of a corresponding Naval District. [Ref. 3, pp. 48-50]

During World War II, 600,000 Marines were under arms, of whom 70% were reserves. These reservists accounted for approximately three-quarters of the ground Marines and virtually all of the aviators who fought in the more than 40 Pacific engagements in which Marines participated. [Ref. 3, pp. 50, 94] At the conclusion of World War II, the usefulness of the reserves having been proven, a postwar mission was established to provide a trained force to meet requirements for expansion of the Regular Marine Corps in time of

war or national emergency. In 1946, the Division of Reserves was separated from the Personnel Department and became a special staff section. [Ref. 3, p. 106]

When the Korean War broke out in 1950, the regular Marine Corps had been cut back to the point that all the ground forces in the entire Fleet Marine Force could not field a 22,000-man war-strength division. In order to provide additional forces to Korea, President Truman authorized the call-up of reserve components to active duty. As in World War II, the successes of the Marine Corps air/ground team owed much to the mobilized reserves. In the early stages of the war, as many as fifty percent of the Marines of the 1st Marine Division were reservists. A large number of volunteer reservists, also ordered to active duty, assumed duties in training and replacement commands, recruit training, in addition to relieving regulars from overseas security forces. [Ref. 3, pp. 164-166]

The years from 1953 through 1960 were rebuilding years for the Marine Corps Reserve after the enactment of Public Law 476 and its amendment, the Armed Forces Act of 1952. In this act, Congress provided for a Ready Reserve, a Standby Reserve, and a Retired Reserve. These categories of reservists were to be members of the Marine Corps Reserve. The Ready Reserve was to be composed of units or individuals liable for call-up in time of war or national emergency by the Congress or the President. The Standby Reserve

differed in that they could only be activated by Congress, while the Retired Reservists were Marines on the retired list subject to specific conditions. [Ref. 3, pp. 182-183]

The Secretary of Defense in 1962, Robert McNamara, wanted four Marine division-wing teams ready to go for the next five years. One of these teams was to be made up of Ready Reserves. The Commandant at the time, General David M. Shoup, reorganized the reserve by grouping units into a 4th Marine Division and 4th Marine Aircraft Wing. This gave reservists a stronger identification with the regular Marine Corps and a "division pride" which had been missing in the past. [Ref. 3, p. 228]

The 4th Marine Division which was formed in August, 1943, at Camp Pendleton, California, was deactivated at the conclusion of hostilities in 1945. During the war, the division had taken four beachheads, all bitterly opposed, Roi and Namur, Saipan, Tinian, and Iwo Jima. In 1966, the division was reactivated, again at Camp Pendleton, with a headquarters nucleus. The headquarters moved in 1977 to New Orleans, Louisiana, a location already occupied by the headquarters of the 4th Marine Aircraft Wing. With this co-location of the reserve division-wing team, the division commenced full operational and administrative control of its subordinate units and relieved the Marine Corps Districts of their participation in the management of resources for reserve organizations. [Ref. 3, p. 269] Congress had

previously recognized difficulties in the identification and control of reserve operating funds. A solution to this situation was initiated by the Defense Appropriations Act for FY73, which reflected reserve operations and maintenance (O&M) funding in separate appropriations of each military service. Prior to FY73, reserve and regular O&M funds were combined in one appropriation for each service. Since this change, increased visibility has been afforded reserve operations through separate and distinct budget formulation and subsequent justification to Congress. [Ref. 7, p. 1062]

The pride and resolve of reservists is distinctly reflected in a quote which appeared in reserve Lieutenant Colonel Melvin L. Krulewitch's article in the November 1937 issue of The Marine Corps Gazette:

...from a small unorganized group of ex-Marines and Naval Militiamen there has grown up within the last few years a live, powerful Reserve, suffering it is true, from growing pains, but overcoming all obstacles and growing both in quality and quantity. The Reserve is just a little brother to the Corps but it is not a stepbrother and its progress and development cannot help but inure to the benefit of the regular outfit. If a motto were to be adopted in addition to 'Semper Fidelis', it might well be "Semper Paratus". With these high purposes always before it, the United States Marine Corps Reserve moves forward. [Ref. 5, pp. 21, 37]

III. FINANCIAL CONTROL SYSTEMS

A. DESCRIPTION OF A FINANCIAL CONTROL SYSTEM

As long as organizations have existed their managers have exercised control in an effort to ensure the accomplishment of desired goals and objectives. But this control, however essential, has not necessarily guaranteed that an enterprise will be successful. The environment has become increasingly more sophisticated and complex and control has taken on even greater importance.

Henri Fayol, a French industrialist, first identified control as an essential element of the management process. Fayol published his theory of management in France in 1916, stating that management control involved insuring that events occur in conformance with plans by examining results, pointing out weaknesses and errors, rectifying them and preventing reoccurrence. Since the first translation of Fayol's work into English, confusion has existed concerning the exact meaning of control. The many connotations associated with the term "control," since it was first used by Fayol, range from a broad interpretation almost synonymous with "management" to specific meanings such as "production control" or "quality control." [Ref. 8, p. 1-3]

A differentiation between levels of control useful to managers has resulted in the identification of three

processes of control and planning. These processes are identified as strategic planning, operational control, and management control. Strategic planning is defined as the identification of goals of an organization and the broad strategies to be utilized to attain these goals. This level of planning is carried out predominately by top management. Conversely, the day to day tasks at the lowest supervisory and managerial levels of the organization are said to be assured through the procedure of operational control. With strategic planning and operational control as the extremes of the planning and control structure, management control occupies that area which falls between these two. Essentially, the effective and efficient manner in which the organization carries out its strategies is guided by this process of management control. Unlike the other two categories, management control encompasses the entire organization, while strategic planning and operational control tend to concentrate on specific areas or interests. While management control utilizes a framework built around a financial structure and is stated in monetary terms, non-monetary measures, such as work units and measures of time, play important roles in providing information on the progress of the organization. [Ref. 9, pp. 1-3]

A fundamental requirement in order for managers to exert any type of control is the receipt of timely and accurate information. In order for a management control system to

function, information concerning historical costs, performance, and achievement of stated objectives is required. Future management decisions can then be based on projections and trends ascertained from reliable sources throughout the organization. Another managerial concept with a narrower focus than the organization-wide management control system is the financial information system. This system has been identified as fulfilling distinct internal and external information needs of management. [Ref. 10, pp. 5-10]

The provision of internal information satisfies the basic requirement for historical information. In addition, it facilitates the day to day operations of the organization which rely on timely and daily information. Historical information ensures that a continuous and comprehensive record of financial activity is maintained for the organization and provides a comparison of present operations with past performance together with current budgets and standards. This comparison enables management to take necessary action as appropriate to realign its progress with stated objectives.

The requirement to make information available for external purposes can be substantial. This need can be fulfilled, in most cases, by information already provided for internal purposes of the organization. In the private sector those recipients of this information might include stockholders or other owners, bankers, and the government. [Ref. 10, pp. 18-19]

Along with the description of a financial information system, Bower, Schlosser, and Zlatkovich recognized nine principles with which the design of a system should be consistent. The principles provide considerations and guidelines with which to measure and ensure effectiveness of the system. The principles of financial information system design are as follows:

1. Reasonable Cost. Information and internal control should be provided at a reasonable cost.
2. Report. Both internal and external reports should be facilitated by the system.
3. Human Factors. Because the system's effectiveness is dependent upon people, applicable human resources principles should be considered.
4. Organizational Structure. System should be tailored to suit the organization with a clearly defined structure.
5. Reliability. Procedures and checks should be present within the system to ensure accuracy.
6. Flexible, Yet Uniform and Consistent. System should be operated in a consistent and uniform manner but provide flexibility for the dynamic changes which occur within organizations.
7. Audit Trail. Tracing of procedural steps of transactions and summaries of information should be facilitated by the system.
8. Data Accumulation. Data should be efficiently and rapidly recorded and classified in order to obtain meaningful information for planning, control, and administrative routine.
9. Data Processing. Meaningful, continuous and controlled flow of data being processed should be provided by the system to provide reliable information and facilitate control. [Ref. 10, pp. 18-19]

The purpose in discussing the essence of management control and outlining the contents of a financial information system is to provide the natural integration of these two concepts into a "financial control system." This unique system, although very similar to the management control system, possesses some subtle differences. It concentrates on the financial aspects of an organization as opposed to the orientation of a management control system as a whole. Additionally, while a management control system purports not to get enmeshed in day to day activities, leaving that function to operational control, the financial control system assumes the framework of the financial information system in relating to and being intricately involved with all aspects of financial recording and reporting. Although the difference is one of perception rather than fact, it highlights the importance and all-encompassing nature of a comprehensive system for financial management.

B. FINANCIAL CONTROL SYSTEM REQUIREMENTS WITHIN THE DEPARTMENT OF THE NAVY

The responsibility for establishing and maintaining adequate systems of accounting and internal control within the Federal Government was vested in the head of each executive agency as a result of the Budget and Accounting Act of 1950. The Comptroller General of the United States was concurrently given the duty of prescribing the accounting principles, standards, and related requirements to which

these systems must conform. The standards and additional guidelines for obtaining approval for systems is contained in Title 2, GAO Manual for Guidance of Federal Agencies.

Contained in the title is the following statement:

The fundamental purposes which underlie the accounting of each Federal Agency are:

1. To provide information necessary for effectiveness and economical management of its operations and the resources entrusted to it.

2. To enable the management to report on the discharge of its responsibilities and operations for which it is accountable. [Ref. 11, p. 2-1]

In addition to these general guidelines stated by the GAO, the Comptroller of the Navy has identified the following specific data requirements for an accounting and reporting system:

1. planning, programming, and budgeting;
2. effective control over all funds, property and other assets for which the Navy is responsible;
and
3. timely, complete, reliable, and accurate financial reports to be used
 - (a) as a basis for preparing and supporting budget requests,
 - (b) for controlling the execution of budgets through the use of cost and performance data,
 - (c) in assisting appropriate levels of Navy management in the fulfillment of their assigned responsibilities, and
 - (d) for providing financial information required by other agencies and authorities having control responsibilities, such as Congress, Department of Treasury, Office of Management and Budget, and Office of the Secretary of Defense. [Ref. 12, pp. 2-1]

Aside from the basic guidelines provided by the GAO and Comptroller of the Navy, specific regulatory and statutory requirements have been enacted or promulgated to assure certain performance. As previously stated, the Budget and Accounting Procedures Act of 1950 established the foundation for financial management within the Federal Government. That act was further clarified by Public Law 84-863, resulting in greater emphasis on accrual accounting, allotment of funds, cost based budgeting for internal operations and appropriation requests, and consistent accounting and budgeting classifications. The Anti-Deficiency Act (3679 R.S., 31 U.S.C. 665) forbids the making of obligations or expenditure of funds in excess of the amount authorized. Additionally, Section 3678 R.S. prohibits use of funds for a purpose other than that approved and authorized by Congress. Standards and principles to be applied to accounting systems, as earlier mentioned, are provided by the GAO. Regulations promulgated by OMB provide guidance for the preparation and submission of agency budget estimates (Circular A-11) and furnish definitions of objects of expenditures (Circular A-12). In addition, OMB regulations established the system of apportionments and reports on budget status, and prescribe requirements for administrative control of funds (Circular A-34). Lastly, implementing instructions and further

guidance in the form of directives, instructions, or memoranda are provided to the Navy Department by the Department of Defense. [Ref. 12, p. a-2]

The importance of a control system in the management of resources is acknowledged by GAO as a way of carrying out, in the most effective, efficient, and economical manner, all duties and responsibilities consistent with the restrictions and requirements of all applicable laws and regulations. With the accounting system recognized as an integral part of a control system the following 12 standards are to be considered in the design of an agency's accounting system:

1. Policies - well communicated, consistent policies in accordance with applicable laws and regulations
2. Organization - well defined organization structure with appropriate authority for mission accomplishment
3. Segregation of duties and functions - effective internal control and segregation of duties
4. Planning - continuous financial, property, and personnel planning
5. Procedures - must be simple, efficient, and practicable
6. Authorization and record procedures - must ensure
(a) full compliance with applicable laws, regulations, and policies, (b) prevent illegal or unauthorized acts, (c) provide for accounting records
7. Information system - decision makers must be provided essential, reliable operating and financial information

8. Supervision and review - all duties and functions should be under proper supervision, in addition to adequate review through an internal audit program
9. Qualifications of personnel - personnel qualifications should be consistent with jobs or functions
10. Personal accountability - each individual must be fully accountable for his actions
11. Expenditure control - control over expenditures must ensure proper compliance with applicable rules, regulations, and policies
12. Safeguarding of resources - resources must be safeguarded against waste, misuse, abuse, deterioration and destruction. [Ref. 11, pp. 2-5]

These GAO system design considerations do not vary in intent from those prescribed for a financial information system. There is, however, a marked intensity in the manner by which rules and regulations are designed to ensure that power entrusted to Government managers is not abused. The specific phrase "financial control system" cannot be found in Title 2, however, the description of a control system providing essential and reliable information to management with an accounting system as its foundation, appears to encompass the requisite characteristics previously associated with that of a financial control system.

IV. THE CURRENT FINANCIAL CONTROL SYSTEM WITHIN THE 4TH MARINE DIVISION

A. SYSTEM DESCRIPTION

A logical place to start in examining the 4th Marine Division's financial control system is with the division's source of funds. The division receives financial support from the Commandant of the Marine Corps in the form of operating budgets, allotments (open and closed), and operating targets. An Operating Budget Fund Authorization under the appropriation Operations and Maintenance, Marine Corps Reserve (O&M,MCR), is provided to finance day to day operations of reserve forces. This appropriation is further subdivided into two subheads which identify the budget activity (major program) and are designated by a 4-digit number suffixed to an appropriation or fund code. Mission operations under subhead 2710 include administration, training, operational deployments, maintenance of material and equipment, personnel support and table of equipment (T/E) replenishment. Maintenance and repair of real property and minor construction, purchased services and other base support functions such as utilities, communications and security are funded under subhead 2730. Funds under the appropriation Reserve Personnel, Marine Corps (RPMC), are received through an allotment (closed) and are utilized to finance

inactive duty travel (IDT), travel to annual training duty (ADT), and uniform clothing items for reserve personnel. Support for active duty training of reserve personnel during periods other than annual training duty or scheduled drills is provided by an operating target or planning estimate (PE) under the RPMC appropriation. [Ref. 13, pp. 1-4]

The division receives additional support from the Procurement Marine Corps (PMC) appropriation and other funds which include Nonappropriated (NAF) and Official Representation. PMC funds, which provide for procurement of class 3 and class 4 investment type items, are held at Headquarters Marine Corps. The Marine Corps exchange system distributes profits on a pro rata basis for morale, welfare, and recreation programs. Finally, the Commanding General receives a limited allotment (open) of Official Representation funds for expenses incurred in conjunction with official entertainment. [Ref. 14, pp. 2-10]

The Commanding General, 4th Marine Division, retains full authority and legal responsibility for funding transactions related to public funds allotted or authorized to the division, as appropriate. [Ref. 13, pp. 2-10]

Within the division, planning estimates are utilized formally to suballocate an amount of obligational authority, subject to administrative control, to fund administrators who are responsible for the financial management of an organizational entity. Within the division, these fund

administrators identified for applicable fiscal programs include the Commanding Officer, Headquarters Battalion (-), group/regimental commanders, Inspector-Instructors, and designated general and special staff officers. [Ref. 14, pp. 2-9] A listing of division fund administrators (FA's) is contained in Appendix A.

Financial management within the division is under the authority of the Assistant Chief of Staff, Comptroller (AC/S, Comptroller), who, as a member of the Commanding General's staff, is responsible for development, coordination, and maintenance of an integrated system of staff services in the broad area of financial management. The Division Budget Officer, a special staff officer under the cognizance of the AC/S Comptroller, performs coordination, implementation, and monitoring functions involving the division's programs and budgets. Assisting in the area of base operations, the Assistant Chief of Staff, Base Operations (AC/S, Base Ops), functions as a program manager for base operations decision units. This officer coordinates and implements budget and fiscal control policies, under the guidance of the AC/S, Comptroller, for base operations and base support programs. [Ref. 14, pp. 2-4]

Supplemental assistance in the financial management of division resources is supplied by program administrators and decision unit managers, in addition to intermediate level commanders and fund administrators. Program administrators

(FA's), listed in Appendix B, are general and special staff officers who support unprogrammed requirements of the division through the administration of funds retained in reserve at the division headquarters. The availability of these funds is monitored by the PA's through the use of informal accounting records. The utilization of decision units during budget preparation is facilitated by decision unit managers (DUM's), general or special staff officers identified in Appendix C, who formulate decision packages for decision units under their cognizance. Decision unit managers participate in the prioritization process of the division's budget committee and during budget execution oversee resource utilization within their decision units. [Ref. 14, pp. 2-5]

Inherent in command is the responsibility for subordinate organizations. Within the division, intermediate level commanders/Inspector-Instructors are tasked with ensuring proper financial management, effective and efficient resource utilization, and accurate and timely reporting of their units. Hindered by the geographical dispersion of units, this effort is intended to be conducted without additional reporting or delays resulting from strict use of the chain of command for all correspondence but, rather, by use of the financial status summary report and additional data provided by division headquarters. [Ref. 13, pp. 2-7]

The official accounting system utilized by the division is the PRIME Operations Sybsystem, prescribed by

Headquarters Marine Corps for major posts and stations. As a portion of the Defense Department's Resource Management System (RMS) implemented in 1968, Project PRIME presented the Marine Corps with additional work by requiring the installation of a completely new cost and financial accounting system. The Marine Corps recognized the difficulty and complexity that would be incurred if field activities operated independently to implement this new system and decided to utilize class I ADP procedures for the accumulation of data required by RMS. Class I procedures or programs are identified as those which

...express Headquarters Marine Corps policy through EAM procedures or ADP program steps; initially developed and debugged by or under the direction of Headquarters Marine Corps; not modified without specific authority from the Commandant of the Marine Corps. [Ref. 15, pp. 1-3]

The resulting program procedures standardized data collection, processing, report preparation and submission of basic reports for participating commands within the Marine Corps.

A consolidated accounting office (CAO) serves the 4th Marine Division, 4th Marine Aircraft Wing and the 8th Marine Corps District and is colocated with and under the auspices of the Comptroller, 4th Marine Division. This office maintains the official accounting records for the division, wing and district. In the case of the division, fund administrators furnish accounting documents and reports as input to the accounting system. A fiscal document transmittal (FDT), a manually prepared letter and listing of

documents, is used to report all obligations and cancellations of obligations. Once an obligation changes, when material is received, services completed or temporary additional duty performed, the expense incurred is reported by fund administrators through the quarterly validation of an Unfilled Orders Status Report. This mechanized report is initially received from the CAO. [Ref. 13, pp. 2-3]

The management of funds by fund administrators is accomplished through the maintenance of a Memorandum Fiscal Ledger (MFL) in addition to planning estimate authorization letters and source documents and other memorandum records. The MFL provides an updated status of authorized funds by reflecting the amount of obligations authorized, reduced by subsequent obligations reported on FDT's and updated as variances from obligated amounts become known. This manually prepared record is as current and accurate as the information available to each fund administrator. [Ref. 13, pp. 2-17]

A source document initiated when funds are obligated or expended supports the fund usage. This document can be a contract or agreement, purchase order, work request, itemized shopping list for General Services Administration (GSA), Direct Supply Support Control (DSSC), Serve Mart, or Military Standard Requisition Issue Procedures (MILSTRIP) requisition. It can also be a memorandum from the fund

administrator or purchasing officer authorizing the obligation of an amount of funds for a specific purpose such as telephones, utilities, or petroleum, oil, lubricants (POL).
[Ref. 13, pp. 2-6]

Periodic mechanized reports prepared by the CAO provide fund administrators information with which their MFL can be updated to reflect financial information contained within the official accounting records at the CAO. Reconciliation and submission of a reconciliation report to the CAO is required by each fund administrator within a specific time period established for each report. The Fund Administrator Management Report (FAMR), reflects balances for the documents obligated and expenditures processed on the official accounting records. This report is backed by an unfilled orders update listing and a Daily Stock Fund Expense Listing and is provided to fund administrators with the FAMR reflecting new transactions and changes to transactions that have occurred during an update cycle. These reports permit the reconciliation of MFL's for O&M, MCR, appropriation subheads 2710 and 2730 and are produced by the class I system. Similar FAMR reports reflecting the status of allotments for school/special tours, IDT/ADT, and clothing are produced by locally programmed class III procedures. [Ref. 13, pp. 2-19]

The Unfilled Orders Status Report (UFO) reflects transactions that are outstanding unfilled orders or outstanding accounts payable, in addition to obligations or expense

adjustments that may be appropriate. Validation of the UFO Status Report is accomplished at the end of each of the first three quarters of the fiscal year and at the end of each month during the 4th quarter. [Ref. 13, pp. 2-22]

Transactions that have been recorded as completed are reflected on the Completed Orders Status Report. A master listing of valid, active and inactive job order numbers (JON's) is contained in the Master Job Order Number Listing (MJON Master Listing). A Material and Services Report displays information concerning those transactions that have been recorded as an expense during the update period, with information provided by job order number and the related commodity area within its applicable work center. [Ref. 13, pp. 2-25]

Another glimpse of cumulative expenses, by commodity, is furnished by the MJON Balance Sheet. This report reflects actual material or services consumed in the operation of the unit. Items purchased from a Marine Corps DSSC are listed on a mechanized Daily Stock Fund Expense Listing resulting in a credit in the same total amount of the listing on the UFO Update Listing. [Ref. 13, pp. 2-38]

Information concerning funds status by fund code is contained in a class III Fund Administrator Audit Report. The information is reflected by amounts authorized, expended,

unfilled orders, total obligations, and available balance in addition to giving the percentage of funds obligated to date.

Finally, an Unmatched Transaction/Expenditures Listing is produced monthly and requires validation by fund administrators. Unmatched expenditures may result from keypunch errors on the UFO Update Listing, failure to reflect obligations on an FDT, cancelled transactions, or duplicate liquidations. A special FDT report is required to effect correction of any unmatched expenditures. [Ref. 13, pp. 2-41]

Three class I reports are forwarded to Headquarters Marine Corps in addition to several class III reports in order to satisfy external reporting requirements. The class I reports include the Performance Statement, NAVMC form 10890, the Expense Report, NAVCOMPT form 2168, and the Trial Balance, NAVCOMPT form 2199. The Performance Statement reflects current year to date expenses, unfilled orders, total obligations, and budgeted amount to date on the total yearly budget. Also shown are obligations as a percentage of the total budget and budget to date. Information contained in the Expense Report includes cumulative yearly expenses reflected by cost account code, functional/subfunctional area, and program element. Finally, the Trial Balance Report reflects the financial status of funds available under an operating budget. It compares the general ledger's current month account balances with the prior

month showing the change in each account. Those reports generated by class III programs reflect the financial status of allotments for clothing and IDT/ADT. Funds status is reflected by fund code for the current fiscal year and two previous years. Amounts authorized, obligated, and expended, in addition to outstanding obligations and remaining balances, are shown. [Ref. 16]

In addition to the class I reports forwarded to Headquarters Marine Corps, several additional class I generated reports are used by the division staff and the accounting office for internal needs. These reports include a summary trial balance used to balance and correct journal vouchers; a report reflecting outstanding travel advances by fund administrator; and reports reflecting the financial status of reimbursable orders. [Ref. 16]

A number of class III reports are utilized to provide management information for internal use. The Financial Status Summary Report is used to assess quickly the financial status of fund administrators by the division staff and intermediate commanders. This report reflects fund obligation authorizations and obligations to date by amount and percentage for each fund administrator. [Ref. 16]

The financial control system within the division attempts to provide the information and opportunity for the conduct of sound financial management. The application of available resources to obtain, process, and report financial information

is directed by the AC/S, Comptroller, utilizing the CAO and with the full appreciation of the importance of this undertaking and cooperation of the division general and special staff and the division's commanders/Inspector-Instructors.

B. ANALYSIS OF THE SYSTEM

An indication of the usefulness of the financial control system utilized by the 4th Marine Division can be obtained by relating the system to those standards and requirements for both private and public control systems previously outlined in Chapter III.

The fundamental requirement for managers identified in Chapter III was the receipt of timely and accurate information. The fulfillment of the requirement within the division for internal and external reports results from mechanized reports generated by class I and class III procedures. Periodic reports required by Headquarters Marine Corps are built into the class I system and, therefore, inherently satisfy that requirement. Changes in report content or format desired by Headquarters Marine Corps necessitate the issuance by that headquarters of guidance and approval to the division to modify existing class I procedures. The external reports currently produced include the Performance Statement 10890, Expense Report 2168, and the Trial Balance 2199.

The reports required for internal purposes to satisfy managerial, operational, and historical needs are generated in the same mechanized manner as are external reports. In some instances the same report is utilized to satisfy both internal and external reporting requirements. Although the class I system is all encompassing, class III procedures are utilized to generate desired additional reports providing information relative to funds status for allotments, cash disbursements, TAD undertaken by division staff personnel, and the financial status of fund administrators. Periodic reconciliations between the manually prepared memorandum fiscal ledgers and the mechanized reports provide fund administrators, decision unit managers, program managers, intermediate commanders, and the division's financial management staff with necessary management information relative to funds under their cognizance.

While the system appears effective in providing financial information, it is not without problems. A look at the division's system in relation to the criteria proposed in Chapter III for a financial information system provides a glimpse of problem areas. The financial information system reflected in Chapter III described nine principles which should receive consideration in system design. The nine principles involved reasonable cost, reports, human factors, organizational structure, reliability, flexibility, audit trails, data accumulation, and data processing.

The decision to use mechanized class I procedures as a basis for financial data accumulation, processing and reporting within the Marine Corps attempted to reduce the programming requirements of individual commands. [Ref. 13, pp. 1-3] Regardless of the extent of mechanization of the processing and reporting functions, the process of data accumulation and reconciliation by fund administrators results in considerable commitment of time and effort by their fiscal personnel. Interviews with several Inspector-Instructors indicated that on the average over 50% of the time spent by their fiscal personnel was dedicated to financial data recording and reconciliation. Activities of greater usefulness involving financial analysis and planning could only be done after the completion of required record maintenance. Without exception, every Inspector-Instructor interviewed expressed the opinion that better financial management would result from a reduction in the time required for record keeping. The substantial manual effort required of fiscal clerks was considered to be adversely affecting their morale and motivation. [Refs. 17, 18, 19]

The last six principles of the financial information system are affected primarily by three factors: unit locations, numbers of fund administrators, and methods of data accumulation, processing and reporting. The first factor is the large number of fund administrators utilized within the division. Unlike its regular counterparts, the 4th

Marine Division is not co-located with its organizational units. Co-location facilitates coordinated financial management and timely submission of financial data. Instead, over 150 separate reserve units not only operate in response to their assigned missions but, as a result of the geographic isolation from other units of the division, must effect their own base operations functions.

The second factor of geographic dispersion of units, and consequently fund administrators, results in a lack of timeliness peculiar to a system that relies primarily upon the postal service to transmit financial data from its fund administrators to the accounting office. Compounding the problems resulting from the first two factors, the third factor relating to the fact that data received from fund administrators must be manually prepared and, when received by the CAO, manually fed into the mechanized system escalates a difficult problem of coordination and control into one of extraordinary complexity and understandable delay.

The combination of the number of fund administrators, the delay in sending or receiving data and the manually prepared nature of FDT submissions and necessary reconciliations, presents a voluminous, less than timely processing and production of financial information.

These three factors impact on principles of the financial information system in the following manner. The reliability of the system is contingent upon manual edits and

encumbered by the lack of timeliness and volume of data encountered. While certainly uniform and consistent because of its rigid structure, the system is expectedly inflexible to the changing requirements of local management. And, while there is an existing audit trail, it is limited by the manual manipulation of transactions and dependent on the record keeping ability of each fund administrator. If the two areas of data accumulation and data processing reflected in the financial information system were scored for a measure of success, the system would show as a dismal failure. Finally, sorely inefficient forwarding of financial data from fund administrators to the CAO is coupled with the processing of these data in such a way so as to produce financial information of adequate but far from optimal usefulness.

V. THE STANDARD ACCOUNTING, BUDGETING AND REPORTING SYSTEM (SABRS)

A. SABRS BACKGROUND AND DESCRIPTION

Presently, the ability to manage funds within the Marine Corps is dependent upon a combination of automated, semi-automated, and manual systems and techniques. The concern for control of funds follows the responsibility under Section 3679 R.S. of Public Law to expend funds within the limits set by appropriations from Congress. As this responsibility is passed through the Comptroller of the Navy, the Commandant of the Marine Corps, the Fiscal Director of the Marine Corps and, ultimately, the Post and Station or Fleet Marine Force (FMF) Commander, it carries with it legal responsibility for fiscal accountability. The unit commander ultimately in receipt of an operating budget, possessing final 3679 responsibility, now has the ability to allocate funds within his command to insure effective and efficient resource management. Further allocation of budget authority may be made to a fund administrator, as in the case of the 4th Marine Division, who is permitted to record commitments, incur obligations, and expend authorized funds.

Currently, budgeting and reporting systems that support the Marine Corps include the automated, non-accrual

Marine Air/Ground Financial Accounting and Reporting System (MAGFARS) which supports the FMF. Although non-accrual systems do not meet accounting standards required by the GAO, the operating forces have been exempted by the Navy Comptroller. Accounting requirements are reduced because no civilian labor is employed by FMF units and these units reside as tenants aboard Marine Corps posts and stations. Posts and stations, the 4th Marine Division, and 4th Marine Aircraft Wing, on the other hand, are supported by the PRIME Operations Subsystem, which records transactions on an accrual basis. In addition to the two major automated support elements listed above, there are a number of locally developed automated systems to support allotment accounting throughout the Marine Corps and a Class I Budget System that interfaces with both MAGFARS and PRIME to support specific budgetary requirements. These systems must be augmented by manual memorandum records to effect timely positive control of funds. [Ref. 20, pp. 2-5]

Work accomplished by fund administrators incurring obligations for material and services is forwarded to an accounting office on a regular basis for processing into the accounting system. CAO in New Orleans, Louisiana, performs the official accounting function for the 4th Marine Division. Preparing transactions by the fund administrator for input to the CAO may take between 7 to 14 days because of required coding and format. Problems under the present systems

include these and other time delays of such significance that, in order to retain current funds status, manual memorandum records must be maintained. Additional problems noted in the present system include:

1. Automated update processing takes 8 to 10 hours.
2. Limitations of current system require single source input. Automated Service Centers (ASC) with more than one subscriber must process activity accounts sequentially.
3. Timely data for functional managers cannot be obtained to make valid decisions concerning these funds.
4. Requests by managers for special reports may take days to produce, if at all.
5. Marines working within the accounting and financial management occupational fields transferred between posts or stations and FMF units must be retrained in the differing system.
6. Higher authority requirements for reports require earlier closeouts of monthly business. [Ref. 20, pp. 10-11]

The search for an improvement in processing transactions and providing required information was predicated on perceived financial management requirements and their subsequent validations, which requirements the current systems were incapable of providing. A recommended replacement system, SABRS, was proposed after consideration of seven alternatives which included numerous variations or extensions of the existing systems. The alternatives considered but not recommended include:

1. expand the existing PRIME Operations Subsystem,
2. expand the existing MAGFARS system,
3. expand the Allotment Accounting system,
4. retain existing systems status quo,
5. utilize existing systems of other DOD agencies,
6. devise a manual system. [Ref. 21, pp. 1-2]

The process which resulted in the recommendation of SABRS operated under certain guidelines and constraints. The guidelines proposed development of a system within funding capabilities of operating forces and supporting establishments. Additionally, the system had to conform to the GAO requirements of accrual accounting, unlike the present MAGFARS. Finally, deployed forces had to be able to use the system. Necessary constraints included development of a system with available personnel and financial assets and utilizing standard DOD telecommunications facilities to the maximum extent possible. Responsibilities implied by legal and fiduciary requirements concerning the control of funds would also have to be satisfied. After considerable investigation of the problem and careful analysis of the feasible alternatives, SABRS was recommended as the best alternative by the Fiscal Division at Headquarters Marine Corps and was subsequently approved for development by the Chief of Staff, Headquarters Marine Corps, on August 19, 1978. As SABRS is envisioned, it would totally integrate accounting, budgeting and reporting in such a manner that the current MAGFARS

and PRIME Operations Subsystem would be replaced, along with the Allotment Accounting and Class I Budget System. Specifically, SABRS would provide the following characteristics to all of its customers:

1. inquiry capability to all users within 15 seconds,
2. status of funds current as of the last transaction entered into the system,
3. financial data, other than fund status, no older than 24 hours,
4. special reports provided upon request,
5. concurrent processing by the ASC of all major customers,
6. reduce the necessity for memorandum records by 80%,
7. reduce the necessity of retraining personnel as a result of transfers between operating commands and posts and stations,
8. reduce input errors by at least 50% and correctional processing time by 80%,
9. reduce hard copy computer input/output by 70%
10. interface with other related automated systems,
11. meet all the requirements and standards imposed by the GAO, DOD, Privacy Act, and other impacting regulations. [Ref. 22, pp. 6-7]

The benefits to be derived from SABRS are seen to improve significantly the accessibility of financial information by managers, reduce the expenditures of time and manpower in processing financial transactions, and subsequently permit the effective and efficient management of resources. The simplicity of one standard, responsive system providing up to date, comprehensive information concerning fund

expenditures and current fund levels is at the radix of the Automated Data Systems concept. The effort required to maintain the present systems by processing transactions and keeping manual memorandum reports approaches the old adage of "the tail wagging the dog."

The development schedule for SABRS envisions the three phases of concept formulation, Automated Data Systems (ADS) development and ADS implementation. The first phase, concept formulation, is projected to be completed by January 1981. Phase II, ADS development, including analysis and design, programming, and test and evaluation is projected to occur between January 1981 and September 1982. The final phase of ADS implementation is envisioned to take place essentially in the last three quarters of FY 82, with ultimate system implementation throughout the Marine Corps by October 1, 1982. [Ref. 22, pp. 9-12]

B. PROPOSED IMPLEMENTATION OF SABRS WITHIN THE MARINE CORPS AND THE 4TH MARINE DIVISION

The system development of SABRS is linked with the proposed Marine Corps Standard Supply System (M3S), which linkage provides a unique opportunity to coordinate financial development with logistics development and, thus, to integrate and simplify both systems. Features which are key to the development of SABRS/M3S are the simultaneous single capture of data, a shared data base management system, and a common data base. The compatibility of the

two systems with each other and other systems currently being developed facilitates the automated exchange of information, which would reduce manual efforts presently required at many management levels. [Ref. 23, p. 2]

SABRS is envisioned to be sufficiently flexible in its design to accommodate the dynamics of financial management information, appropriation structure, funding, data processing support and organization changes. [Ref. 23, p. 2]

The proposed financial system will be configured as a regionally centralized system utilizing a large central processing unit at six Regional Automated Service Centers (RASC). Between 50 to 350 user terminals will be networked to each RASC computer, which will contain all the financial data elements necessary for the accounting, budgeting, and reporting functions. [Ref. 23, p. 4]

The types of accounting and budgeting transactions processed by the system will not change. However, significant improvements to processing capabilities and transaction data flow will result from the utilization of updated ADP capabilities. [Ref. 23, p. 8]

While SABRS will be supported by large scale computers at the RASC, the majority of the users will utilize Automated Data Processing Equipment (ADPE) for the Fleet Marine Force (ADPE-FMF) and for the supporting establishment (ADPE-SE), on-line CRT terminals which will be electronically linked

to the RASC. The system user will utilize the terminals to enter input, receive output and have inquiry capability.

[Ref. 23, p. 10]

The CRT terminals are to have sufficient screen size, letter sets, keyboard characteristics and transmission speeds to process standard inputs, inquiries and ad hoc report requests easily and quickly and to display outputs without undue delays. Access to the RASC from user terminals will be by base communication lines, the Marine Corps Data Network (MCDN), leased lines or dial-up telephone lines. The access route would be determined by the proximity of the terminal to a communication link to the RASC. Deployed units will capture data on magnetic tape or floppy disc, which will then be transmitted to a specified processing location by mail, courier or other available means. [Ref. 23, p. 16]

Through the use of ADPE and the capability of SABRS/M3S and other systems, the one-time capture of data will be employed to the maximum extent possible. Successive entries can be built upon prior entries to reduce the redundant entry of data. Input transactions will be entered into the system through ADPE during the preparation of source documents. These documents may be generated by fund administrators, DSSC, purchasing and contracting, or disbursing. Validations and edits will be performed when the data are placed into the ADPE prior to updating at the RASC, which

will be done on a 24-hour basis. Supply issue transactions or procedures related to purchase orders and contracts will be keyed into the system at the issue point or contracting office on supporting ADPE. The monetary value of each transaction will reduce the fund availability of the appropriate fund administrator at the master fund control record maintained at the RASC. Fund status will be available for immediate inquiry by the fund administrator. Fund control procedures will ensure that adequate funds are available prior to issue of material or services to the customer. Hard copy listings reflecting document numbers and other applicable information will be forwarded to fund administrators. [Ref. 24, p. 3]

Reports required for accounting and budgeting purposes for internal and external needs will be produced at the RASC. Hard copy production of internal reports will be minimized as a result of the inquiry capability of the ADPE. External reports will initially be produced in hard copy form supplemented by data capable of being transmitted electronically to the recipient. Eventually, the submission of hard copy reports will be discontinued. Since all reports will be generated from a single data base, there will be no need for the reconciliation of information currently provided from several levels of management. [Ref. 23, pp. 14-15]

The implementation plan for SABRS provides for the placement of CRT terminals at designated locations on posts and stations and in the active FMF so as to make maximum use of the close proximity of fund administrators or other users. As a result of this co-location of users, terminals will be situated to serve more than one user in a way consistent with their anticipated utilization. Since the six proposed RASC's are to be located at major Marine Corps installations, transmission between user terminals and a RASC will be facilitated by their relative close proximity, with the ability to utilize base telephone lines at no charge. [Ref. 23]

When implementation of SABRS is proposed for the 4th Marine Division, problems peculiar to the reserve structure develop. The factors already noted in Chapter IV pertaining to unit locations and numbers of fund administrators emerge as major considerations relative to SABRS implementation. When SABRS was being conceptualized, it was considered too costly to place terminals at the fund administrator level within the 4th Marine Division. [Ref. 25] The result was the approval of SABRS with ten terminals to be provided to the division, although no formal cost-benefit analysis had been completed prior to the decision. Those ten terminals will be sufficient to provide interface for the division with SABRS through the RASC in Albany, Georgia. [Ref. 24, fig. 3] However, the result of this limited placement of

terminals would be that virtually no relief for the division would be provided from the enormous manual effort required by fund administrators in transmitting financial data to the CAO. Nor would relief be provided from the delay in receiving from the CAO financial information vital for the efficient and effective management of resources. Therefore, a prime benefit to be realized from SABRS implementation would not accrue to the 4th Marine Division as presently envisioned.

C. ALTERNATIVE METHODS OF IMPLEMENTATION IN THE DIVISION

This study has examined the financial control system currently utilized by the 4th Marine Division and has provided background and a description of SABRS. In order to gauge fully the impact on the division of the implementation of SABRS, an analysis was conducted of alternatives to the proposed placement of ten terminals in the division. The objective of this analysis was to provide an evaluation of attempts to recover the potential benefits of SABRS that are foregone under the present implementation plan. The basis of the analysis contained in this study is an economic analysis conducted by the Fiscal Division at Headquarters Marine Corps and dated 27 March 1980. The analysis is contained as part of Appendix A to an ADS Development Plan (ADSDP) for the development of a financial system which ultimately led to SABRS. [Ref. 24] The analysis was

was conducted in accordance with DOD Instruction 7041.3, Economic Analysis and Program Evaluation for Resource Development. [Ref. 24]

The March 1980 analysis identified assumptions and pursued cost development and cost benefit analysis resulting in conclusions regarding the configuration of SABRS. The analysis for this study is predicated on the basic assumption that SABRS will be implemented throughout the Marine Corps as presently configured and described in the ADSDP. Therefore, only those assumptions, costs and benefits contained in the March 1980 analysis that are pertinent to differing plans for CRT terminal placement within the 4th Marine Division have been considered.

The following assumptions are determined to be relevant to this study:

1. Economic life of SABRS is eight years, benefits will occur after 12 months, and the analysis encompasses 9 years.
2. Three types of total costs are calculated for the exhibits: gross cost, net cost, and discounted cost. Gross cost is the sum of recurring and nonrecurring costs. Net cost is the gross cost less the savings. Discounted cost is the net cost discounted to present value. The discount rate is 10 percent, which is required in all DOD economic analyses.
3. Cost avoidances define reductions in personnel levels of effort and/or other costs associated with the SABRS system but which do not result in actual T/O or budgetary reductions and therefore, cannot be classified as benefits of the SABRS system. [Ref. 24, pp. 1-3]

The following additional information and background concerning two of the assumptions are provided for clarity.

First, although a life cycle of eight years for SABRS was used in the March 1980 analysis, development and other project requirements necessitated a four-year period prior to actual system implementation. Costs incurred during this four-year development period, in addition to the eight-year life cycle costs, required the March 1980 analysis to encompass 12 years. The nine years reflected in the analysis of this study results from one year for equipment procurement followed by the system life cycle of eight years. The other assumption in need of clarification concerns the classification of cost avoidances as benefits resulting from SABRS. The benefits relate to the transfer of effort by fiscal personnel from manual record keeping to other productive financial work previously not accomplished. Financial benefits normally accrue from three situations: personnel reductions, not having to add additional personnel and indirect financial savings resulting from the more productive utilization of the time saved by the newly implemented system. If the assumption involving personnel cost avoidance is not considered correct, then the sole financial benefit reflected in this study would be viewed as a non-financial benefit and should be considered in that light.

For the purpose of the economic analysis in this study three configurations of terminals for the 4th Marine Division were examined. The configuration identified as

the current plan reflects the placement of ten terminals in the division, as is presently proposed by Headquarters Marine Corps. Alternative #1 envisions providing terminals for each of the 178 fund administrators within the division. Finally, alternative #2 is a compromise between the first two configurations, with the placement of terminals at intermediate levels of command. For this alternative, one terminal would be placed at each battalion headquarters, with the exception of artillery battalions and battalions of the Force Service Support Group (FSSG), each of which would receive two terminals. The reason for two terminals at selected battalions is the increased maintenance and supply requirements inherent in those particular organizations. Alternative #2, including ten terminals for fund administrators at the division headquarters, results in a total of 57 terminals.

The following are elements of cost considered in the March 1980 analysis: [Ref. 26]

1. Development costs,
2. Equipment costs,
3. Test period costs,
4. Communications costs,
5. Maintenance costs, and
6. Operating costs (other).

Those costs not considered relevant to this study include development costs and test period costs. No change

occurs in these particular costs as a result of changes in terminal configurations within the division.

Equipment costs are the result of an estimate from the Command, Control, Communications and Computer (C4) Systems Division at Headquarters Marine Corps. The situation of independently located fund administrators resulted in the identification of terminals incorporating a controller to permit communication directly with the RASC. This type of terminal is estimated to cost \$3,700. A less expensive terminal, costing approximately \$1,500. and usable when terminals can be clustered, such as at division headquarters, was also identified. In this situation a controller would be required for every ten terminals. Although equipment costs vary slightly from those costs contained in the March 1980 analysis, they are considered better estimates and have been consistently applied. [Ref. 25] Equipment costs are reflected in Table 1 for each configuration of terminals.

While communication costs are deemed appropriate for consideration, they are estimated by C4 to be included in current telephone charges incurred by fund administrators. This situation results from the use of standard telephone lines by those terminals in remote locations for transmission to the RASC. [Ref. 26]

TABLE 1

Equipment Costs

Current Plan

10 clustered CRT terminals	@ \$1500	=	\$15,000
1 controller	@ 4318	=	4,318
Total Costs			<u>\$19,318</u>

Alternative #1

168 remote CRT terminals	@ \$3700	=	\$621,600
10 clustered terminals	@ 1500	=	15,000
1 controller	@ 4318	=	4,318
Total Costs			<u>\$640,918</u>

Alternative #2

47 remote CRT terminals	@ \$3700	=	\$173,900
10 clustered CRT terminals	@ 1500	=	15,000
1 controller	@ 4318	=	4,318
Total Costs			<u><u>\$193,218</u></u>

TABLE 2
Equipment Maintenance Costs

Current Plan

10 clustered CRT terminals	@ \$120/yr	= \$	1,200
1 controller	@ 276/yr	=	276
Annual Cost		\$	<u>1,476</u>

Alternative #1

168 remote CRT terminals	@ \$420/yr	= \$	70,560
10 clustered CRT terminals	@ 120/yr	=	1,200
1 controller	@ 276/yr	=	276
Annual Cost		\$	<u>72,036</u>

Alternative #2

47 remote CRT terminals	@ \$420/yr	= \$	19,740
10 clustered CRT terminals	@ 120/yr	=	1,200
1 controller	@ 276/yr	=	276
Annual Cost		\$	<u><u>21,216</u></u>

Maintenance costs, also estimated by C4, are contingent upon the type of terminal utilized. Higher costs are anticipated for the remote terminals. The costs relevant to each configuration are shown in Table 2.

The last category of costs, other operating costs, pertains to cost avoidances resulting from the redirection of personnel from manual manipulation of MFL's, FDT's, and reconciliations to more productive activities such as analysis, management of funds, and problem areas. While no personnel reductions or additions result from any of the alternatives, the value of cost avoidance is reflected in the benefit analysis to follow. Also addressed in this category are computer operating costs. While mentioned in the March 1980 analysis, these costs should remain constant because different terminal configurations should have little effect on the transaction volume from the division to the RASC. [Ref. 26]

The benefit portion of this analysis includes both financial and nonfinancial benefits, with the major nonfinancial benefit of SABRS being the establishment of a single standardized financial system. This system integrates supply, accounting, budgeting and reporting functions in addition to replacing existing Class I and Class III systems with significantly simplified procedures. The single financial benefit relevant to this analysis is the cost avoidance resulting from personnel not having to

process transactions manually and maintain memorandum records. The March 1980 analysis estimated that, with access to a terminal, at least 30 percent of the time currently spent performing manual functions can be eliminated. Since every fund administrator within the 4th Marine Division currently must maintain manual records, only those with access to a terminal would realize a cost savings. A military cost of \$13,640. for each fund administrator was identified in the March 1980 analysis for the manual manipulation of financial data and has been used in this analysis. [Ref. 24, pp. 19-20] Manual processing costs are calculated in Table 3. If the manual processing costs associated with each of the three terminal configurations are compared to the costs incurred without the benefit of any terminals then a cost avoidance, or benefit from SABRS, can be ascertained. The cost involved when no terminals are utilized is \$2,427,920. ($\$13,640. \times 178$). Subtracting the processing costs for each configuration from the costs related to a system not using terminals results in the following cost avoidances: Current Plan - \$40,920.; Alternative #1 - \$728,376.; and Alternative #2 - \$233,224. A summary of benefits and associated costs for each terminal configuration is provided in Tables 4, 5, and 6. The format reflected for the tables is the same as used in the March 1980 analysis.

TABLE 3
Manual Processing Costs

Current Plan

10 terminals	-	168 FA's @ \$13,640 +	
		10 FA's @ \$13,640 x .70	=
			<u>\$2,387,000</u>

Alternative #1

178 terminals	-	178 FA's @ \$13,640 x .70	=
			<u>\$1,699,544</u>

Alternative #2

57 terminals	-	121 FA's @ \$13,640 +	
		57 FA's @ \$13,640 x .70	=
			<u>\$2,194,676</u>

Summary of Costs and Benefits - Current Plan

PROJECT YEAR	Project Costs (Thousand \$)						DISCOUNTED ANNUAL BENEFITS	DISCOUNTED ANNUAL COSTS	NET DISCOUNTED ANNUAL COSTS
	NONRECURRING COSTS	RECURRING COSTS	ANNUAL COSTS	DISCOUNT FACTOR	DISCOUNTED ANNUAL COSTS	ANNUAL BENEFITS			
1	19.0		19.0	.954	18.0			18.0	
2		1.5	1.5	.867	1.3	41.0	35.5	-34.2	
3		1.5	1.5	.788	1.2	41.0	32.3	-31.1	
4		1.5	1.5	.717	1.1	41.0	29.4	-28.3	
5		1.5	1.5	.652	1.0	41.0	26.7	-25.7	
6		1.5	1.5	.592	0.9	41.0	24.3	-23.4	
7		1.5	1.5	.538	0.8	41.0	22.1	-21.3	
8		1.5	1.5	.489	0.7	41.0	20.0	-19.3	
9		1.5	1.5	.445	0.7	41.0	18.2	-17.5	
TOTALS									
		19.0	12.0	31.0	25.7	328.0	208.5	-182.8	
		Total Project Cost (at present value)							
		Less Total Benefits (at present value)							
		Total Net Project Cost (in effect,							
		net present value of cost avoidances)							

TABLE 5

Summary of Costs and Benefits - Alternative #1

PROJECT YEAR	Project Costs (Thousand \$)							
	NONRECUR- RING COSTS	RECUR- RING COSTS	ANNUAL COSTS	DISCOUNT FACTOR	DISCOUNT- ED ANNUAL COSTS	ANNUAL BENE- FITS	DISCOUNT- ED ANNUAL BENEFITS	NET DIS- COUNTED ANNUAL COSTS
1	641		641	.954	612			612
2		72	72	.867	62	728	631	-569
3		72	72	.788	57	728	574	-517
4		72	72	.717	52	728	522	-470
5		72	72	.652	47	728	475	-428
6		72	72	.592	43	728	431	-388
7		72	72	.538	39	728	392	-353
8		72	72	.489	35	728	356	-321
9		72	72	.445	32	728	324	-292
TOTALS	641	576	1,217		979	5,824	3,705	-2,726
Total Project Cost (at present value)								
					979			
Less Total Benefits (at present value)					<u>3,705</u>			
Total Net Project Cost (in effect, net present value of cost avoidances)								
					-2,726			

TABLE 6

Summary of Costs and Benefits - Alternative #2

PRO- JECT YEAR	Project Costs (Thousand \$)							
	NONRECUR- RING COSTS	RECUR- RING COSTS	ANNUAL COSTS	DISCOUNT FACTOR	DISCOUNT- ED ANNUAL COSTS	ANNUAL BENE- FITS	DISCOUNT- ED ANNUAL BENEFITS	NET DIS- COUNTED ANNUAL COSTS
1	193		193	.954	184			184
2		21	21	.867	18	233	202	-184
3		21	21	.788	17	233	184	-167
4		21	21	.717	15	233	167	-152
5		21	21	.652	14	233	152	-138
6		21	21	.592	12	233	138	-126
7		21	21	.538	11	233	125	-114
8		21	21	.489	10	233	114	-104
9		21	21	.445	9	233	104	-95
TOTALS	193	169	361		290	1,864	1,186	-896
Total Project Cost (at present value)								
					290			
Less Total Benefits (at present value)					1,186			
Total Net Project Cost (in effect, net present value of cost avoidances)								
						-896		

In addition to the financial benefits just examined the following non-financial benefits reflected in the March 1980 analysis, would accrue to users of CRT terminals:

1. Capacity of managers to develop ad hoc management reports.
2. More timely information allowing quicker response to adverse trends and increased opportunity for managerial action to reverse them. [Ref. 24, pp. 21-22]

A further non-financial benefit pertains to the commonality advocated for active duty and reserve units and only achieved if all fund administrators possess access to a terminal.

It is clear that of the three configurations only alternatives #1 and #2 provide the full level of benefits proposed by SABRS. Since the current implementation plan does not permit access by all fund administrators to CRT terminals, a major potential benefit from SABRS, the reduction of manual processing of data, is lost. Virtually the only benefit resulting from this plan is that the division will have access to SABRS via ten terminals. Between the remaining alternatives, alternative #1, proposing that each fund administrator receive a terminal, results in the lowest net project cost over the life cycle of SABRS. Although initial investment costs are substantially higher than those of alternative #2, the reduction of manual effort over the life of the project provides more than adequate compensation.

VI. CONCLUSIONS

A. SUMMARY

The 4th Marine Division plays a key role in the Marine Corps' reserve air/ground task force. This task force, as one part of the Nation's reserve forces, has taken on an increasingly important position in the defense structure of our country. As a result, the reserves have been progressively strengthened under the Total Force Concept. A major thesis within this concept is commonality between the reserve and active forces so as to facilitate integration of the reserves with active forces in the event of mobilization and provide a force comparably equipped and trained. In meeting readiness requirements, the 4th Marine Division is faced with significant difficulties not normally encountered by active divisions within the Marine Corps. In Chapter IV, the problems faced by the financial control system in providing timely and accurate financial information results primarily from three factors. These factors include the number of FA's utilized by the division, the dispersed location of these FA's, and the manual methods of data transmission and processing required at the FA and division headquarters level. Chapter V described SABRS, an automated financial system, scheduled for implementation throughout the Marine Corps during FY81, and its

implementation plan for the 4th Marine Division. Alternative implementation plans for the division were also examined.

B. CONCLUSIONS

1. Inadequacies of the 4th Marine Division Financial Control System

The current semi-automated financial control system utilized by the division provides basic financial information to satisfy external reporting, historical data collection, and internal reporting requirements. However, the manual data accumulation, recording, and reconciliation required of each FA results in an extremely time consuming and awkward system for resource management. Further delays caused by the necessary transmission of financial data by the postal service result in dated information which inhibits an optimal resource utilization. Structures Class I and Class III programs utilized to generate financial reports further restrict information retrieval if it is not formatted in available reports. The attempts of the 4th Marine Division to overcome problems associated with PRIME and the organizational peculiarities of the division are worthy of note. Financial management within the division has been greatly enhanced through the installation of Class III procedures adapted from other organizations or developed by the division staff, in addition to the promulgation of SOP's for accounting and financial management. Additional

improvements in manual fiscal record keeping and processing, and the continuous training of fiscal personnel have resulted in maximum benefits from a rather antiquated system.

2. Proposed Benefits of SABRS

The implementation of SABRS within the Marine Corps will establish a single financial system for all Marine commands, and combined with M3S will provide an integrated data base information system permitting greatly enhanced interaction between financial and supply functions. The immediate response inquiry capability of SABRS terminals will allow users to allocate financial resources secure in the knowledge that their fund status is as current as their last transaction. The elimination of a substantial amount of the tedious and time consuming data manipulation by fiscal personnel will permit a redirection of effort to more beneficial financial analysis and management. Although the potential benefits attributed to SABRS approach that of a panacea for all of the Marine Corps financial management problems, the true value of the system can only be determined subsequent to its implementation.

3. Problems with the SABRS Implementation Plan for the 4th Marine Division

The 4th Marine Division is presently scheduled to receive 10 SABRS terminals, a number only sufficient to provide the division with access to the system at the headquarters level. Since the vast majority of the 178 fund

administrators of the division, located throughout the country, will not have access to a terminal under this plan, they will experience few of SABRS' benefits. The problems peculiar to the reserve division regarding the numbers of FA's and their dispersed locations, easily overcome by full implementation of SABRS, will remain unresolved. Essentially, FA's will continue to operate after SABRS implementation with little change in their manual methods or ability to manage their resources. An analysis of alternatives for the placement of terminals within the division identified two alternatives as superior to the current plan. The better alternative of the two would provide a SABRS terminal to every FA within the division. A savings of \$2,726,000. (calculated in Chapter V) over the semi-automated system presently used by the division would accrue over the 8-year life cycle of SABRS. The savings over the current SABRS implementation plan would amount to \$2,543,200 (\$2,726,000. - \$182,800.).

C. RECOMMENDATIONS

1. The 4th Marine Division should receive sufficient CRT terminals to permit the division to receive all of the benefits proposed for SABRS.
2. Once SABRS implementation has been completed and the system is fully operational further research could examine the extent to which proposed SABRS benefits have actually been realized by system users.

APPENDIX A

4th Marine Division Fund Administrators (Excerpted from Ref. 13)

<u>FA Code</u>	<u>Unit</u>	<u>Location</u>
AA	H&SCo, 1stBn, 23dMar	Houston, TX
AC	CoA, 1stBn, 23dMar	Lafayette, LA
AD	CoB, 1stBn, 23dMar	Austin, TX
AE	CoC, 1stBn, 23dMar	Corpus Christi, TX
AF	CoD, 1stBn, 23dMar	Orange, TX
AG	H&SCo (-), 2dBn, 23dMar	Encino, CA
AH	Det, H&SCo, 2dBn, 23dMar	Port Hueneme, CA
AJ	CoE, 2dBn, 23dMar	Lathrop, CA
AK	Det, CoE, 2dBn, 23dMar	Concord, CA
AL	CoF (-), 2dBn, 23rMar	Salt Lake City, UT
AM	Det, CoF, 2dBn, 23dMar	Las Vegas, NV
AN	CoG (-), 2dBn, 23dMar	Los Alamitos, CA
AP	Det, CoG, 2dBn, 23dMar	San Bernardino, CA
AQ	CoH, 2dBn, 23dMar	San Bruno, CA
AR	Det, CoH, 2dBn, 23dMar	San Rafael, CA
AS	H&SCo (-), 3dBn, 23dMar	New Orleans, LA
AT	Det, H&SCo, 3dBn, 23dMar	Baton Rouge, LA
AU	CoI, 3dBn, 23dMar	Shreveport, LA
AV	CoK, 3dBn, 23dMar	Memphis, TN
AW	CoL (-), 3dBn, 23dMar	Rome, GA
AX	Det, CoI, 3dBn, 24thMar	Johnson City, TN
AY	CoM, 3dBn, 23dMar	Little Rock, AR
CA	H&SCo, 1stBn, 24thMar	Detroit, MI
CD	CoA, 1stBn, 24thMar	Grand Rapids, MI
CE	CoB, 1stBn, 24thMar	Dayton, OH
CF	CoC (-), 1stBn, 24thMar	Lansing, MI
CG	Det, CoC, 1stBn, 24thMar	Toledo, OH
CH	CoD, 1stBn, 24thMar	Flint, MI
CI	H&SCo, 2dBn, 24thMar	Chicago, IL
CM	CoF, 2dBn, 24thMar	Milwaukee, WI
CN	CoG (-), 2dBn, 24thMar	Madison, WI
CP	CoE, 2dBn, 24thMar	Des Moines, IA
CQ	CoH, 2dBn, 24thMar	Waukegan, IL
CR	H&SCo, 3dBn, 24thMar	St. Louis, MO
CT	CoI, 3dBn, 24thMar	Nashville, TN
CU	CoK (-), 3dBn, 24thMar	Danville, IL
CV	Det, CoK, 3dBn, 24thMar	Evansville, IN
CW	CoL (-), 3dBn, 24thMar	Topeka, KS
CY	CoM (-), 3dBn, 24thMar	Springfield, MO
EA	H&SCo, 3dBn, 24thMar	Camp Edwards, MA
EC	CoD, 1stBn, 25thMar	Topsham, ME
ED	CoA, 1stBn, 25thMar	Albany, NY
EE	CoB, 1stBn, 25thMar	Hartford, CT

<u>FA Code</u>	<u>Unit</u>	<u>Location</u>
EF	CoC (-), 1stBn, 25thMar	Chicopee, MA
EG	Det, CoC, 1stBn, 25thMar	Manchester, NH
EJ	CoI, 3dBn, 25thMar	Buffalo, NY
EL	H&SCo, 2dBn, 25thMar	Garden City, NY
EQ	CoE (-), 2dBn, 25thMar	Folsom, PA
ER	Det, CoE, 2dBn, 25thMar	Wilmington, DE
ES	CoF, 2dBn, 25thMar	New Rochelle, NY
ET	CoG, 2dBn, 25thMar	Dover, NJ
EU	CoH, 2dBn, 25thMar	Harrisburg, PA
EV	H&SCo, 3dBn, 25thMar	Cleveland, OH
EW	Det, CoK, 3dBn, 25thMar	Wheeling, WV
EX	CoK (-), 3dBn, 25thMar	Akron, OH
EY	CoL, 3dBn, 25thMar	Pittsburg, PA
EZ	CoM, 3dBn, 25thMar	Columbus, OH
HA	HqBtry, 1stBn, 14thMar	Los Angeles, CA
	BtryX, 1stBn, 14thMar	Los Angeles, CA
HD	BtryA, 1stBn, 14thMar	Spokane, WA
HE	BtryB, 1stBn, 14thMar	Pico Rivera, CA
HF	BtryC, 1stBn, 14thMar	Waterloo, IA
HK	BtryE, 2dBn, 14thMar	Texarkana, TX
HL	BtryF, 2dBn, 14thMar	Jackson, MS
HM	HqBtry, 3dBn, 14thMar	Philadelphia, PA
HN	BtryG, 3dBn, 14thMar	W. Trenton, NJ
HP	BtryH, 3dBn, 14thMar	Richmond, VA
HQ	BtryI, 3dBn, 14thMar	Reading, PA
HR	HqBtry, 4thBn, 14thMar	Birmingham, AL
	BtryL, 4thBn, 14thMar	Birmingham, AL
HS	BtryK, 4thBn, 14thMar	Joliet, IL
HU	BtryM, 4thBn, 14thMar	Chattanooga, TN
HV	HqBtry, 5thBn, 14thMar	San Francisco, CA
HW	BtryN, 5thBn, 14thMar	El Paso, TX
HX	BtryP, 5thBn, 14thMar	Denver, CO
HZ	BtryO, 5thBn, 14thMar	Oklahoma City, OK
JA	3dANGELICO	Long Beach, CA
JB	AT(Tow)Co, 8thTkBn	Miami, FL
JE	Det, 3dANGELICO	W. Palm Beach, FL
KA	H&SCo (-), H&SBn, 4th FSSG	Atlanta, GA
KB	Det 1, SvcCo, H&SBn, 4thFSSG	New Castle, PA
KC	CommCo (-), H&SBn, 4th FSSG	Greensboro, NC
KF	B&POpsCo (-), 4thLanSptBn, 4thFSSG	San Jose, CA
KG	MPCo (-), H&SBn, 4thFSSG	Lexington, KY
KH	H&SCo, 4thMaintBn, 4thFSSG	Charlotte, NC
KJ	Det, ElecMaintCo, 4thMaintBn, 4thFSSG	Wichita, KS
KL	EngrMaintCo (-), 4thMaintBn 4thFSSG	Omaha, NE

<u>FA Code</u>	<u>Unit</u>	<u>Location</u>
KM	OrdMaintCo (-), 4thMaintBn, 4thFSSG	Waco, TX
KN	GenSptMaintCo (-), 4thMaint Bn, 4thFSSG	Rock Island, IL
KP	Det 1, OrdMaintCo, 4thMaintBn, 4thFSSG	Lawrence, MA
KQ	Det 3, MTMaintCo, 4thMaintBn, 4thFSSG	Sacramento, CA
KR	MTMaintCo (-), 4thMaintBn, 4thFSSG	Abilene, TX
KT	H&SCo (-), 4thSupBn, 4thFSSG	Newport News, VA
KU	Det, H&SCo, 4thSupBn, 4thFSSG	Washington, DC
KZ	AmmoCo (-), 4thSupBn, 4thFSSG	Greenville, SC
LB	Det, CoL, 3dBn, 23dMar	Montgomery, AL
LC	SupCo (-), 4thSupBn, 4thFSSG	Raleigh, NC
LD	H&SCo (-), 6thEngrSptBn, 4thFSSG	Portland, OR
LE	EngrSptCo (-), 6thEngrSptBn, 4thFSSG	Salem, OR
LF	Det 1, EngrSptCo, 6thEngrSptBn, 4thFSSG	Eugene, OR
LG	Det, 4thBulkFuelCo, 6thEngrSptBn, 4thFSSG	Bakersfield, CA
LH	BridgeCo, 6thEngrSptBn, 4thFSSG	Battle Creek, MI
LJ	4thBulkFuelCo (-), 6th EngrSptBn, 4thFSSG	Tucson, AZ
LK	CoA, 6thEngrSptBn, 4thFSSG	Gary, IN
LL	CoB, 6thEngrSptBn, 4thFSSG	South Bend, IN
LM	CoC, 6thEngrSptBn, 4thFSSG	Peoria, IL
LN	CoD, 6thEngrSptBn, 4thFSSG	Phoenix, AZ
LP	H&SCo, 6thMTBn, 4thFSSG	Ft. Monmouth, NJ
LQ	TransCo (-), 6thMTBn, 4th FSSG	Providence, RI
LR	TrkCo (-), 6thMTBn, 4thFSSG	Orlando, FL
LT	Det 2, TrkCo, 6thMTBn, 4thFSSG	Lubbock, TX
LU	AT(Tow)Co, 4thTkBn	Broken Arrow, OK
LV	Det 4, TrkCo, 6thMTBn, 4thFSSG	New Haven, CT
NA	Det 2, MTMaintCo, 4thMaintBn, 4thFSSG	Freemansburg, PA
NB	TrkCo (-), HqBn, 4thMarDiv	Erie, PA
NC	Det, TrkCo, HqBn, 4thMarDiv	Connellsville, PA
ND	CoC, 4thLanSptBn, 4thFSSG	Charleston, SC

<u>FA Code</u>	<u>Unit</u>	<u>Location</u>
NE	Det 1, MTMaintCo, 4thMaintBn, 4thFSSG	Augusta, GA
NF	H&SCo (-), 4thLanSptBn, 4thFSSG	Seattle, WA
NG	CoA, 4thLanSptBn, 4thFSSG	Tacoma, WA
NH	H&SCo, 4thCbtEngrBn	Baltimore, MD
NK	COA, 4thCbtEngrBn	S. Charleston, WV
NL	CoB, 4thCbtEngrBn	Roanoke, VA
NM	CoC, 4thCbtEngrBn	Lynchburg, VA
NN	CoD, 4thCbtEngrBn	Knoxville, TN
SA	H&SCo, 4thReconBn CoA, 4thReconBn	San Antonio, TX San Antonio, TX
SB	CoB, 4thReconBn	Billings, MT
SC	CoC, 4thReconBn	Reno, NV
SD	CoD, 4thReconBn	Albuquerque, NM
SE	4thForReconCo (-)	Pearl Harbor, HI
SF	Det, 4thForReconCo	Mobile, AL
TB	CoB, 4thTkBn	Yakima, WA
TC	CoC (-), 4thTkBn	Boise, ID
TD	Det, CoC, 4thTkBn	Amarillo, TX
UA	CoA, 8thTkBn	Louisville, KY
UB	CoB, 8thTkBn	Syracuse, NY
UC	CoC, 8thTkBn	Tallahassee, FL
UD	CoD, 8thTkBn	Columbia, SC
VA	Det, CoA, 4thAsltAmphibBn	Gulfport, MS
VB	CoB (-), 4thAsltAmphibBn	Jacksonville, FL
VC	CoA, 4thAsltAmphibBn	Norfolk, VA
VD	Det, CoB, 4thAsltAmphibBn	Galveston, TX
WA	LLCo, 6th CommBn	Brooklyn, NY
WB	CommCo, 6thCommBn	Huntington, NY
WC	Det, CommCo (-), HqBn, 4thMarDiv	Indianapolis, IN
WD	Det 1, CommCo, H&SBn, 4thFSSG	Ft. Wayne, IN
WE	CommCo (-), HqBn, 4thMarDiv	Cincinnati, OH
XA	HqBn (-), 4thMarDiv	New Orleans, LA
XB	AC/S, G-1	New Orleans, LA
XC	AC/S, Compt, Civ Labor	New Orleans, LA
XD	PAO	New Orleans, LA
XE	AC/S, G-2	New Orleans, LA
XF	AC/S, G-3, Ops	New Orleans, LA
XG	AC/S, G-3, Trng	New Orleans, LA
XH	AC/S, BOS, Bachelor Leased Housing	New Orleans, LA
XJ	AC/S, G-5	New Orleans, LA
XK	AC/S, G-4, MMO	New Orleans, LA
XL	DivSup	New Orleans, LA
XM	CEO	New Orleans, LA

<u>FA Code</u>	<u>Unit</u>	<u>Location</u>
XN	AC/S, G-1, I-I Hospitalization	New Orleans, LA
XP	DivSup, TrngAllowPool	New Orleans, LA
XQ	DivAdj, TAD	New Orleans, LA
XR	AC/S, Compt	New Orleans, LA
XS	Staff Secretary	New Orleans, LA
XT	AC/S, BOS	New Orleans, LA
XU	AC/S, Compt, MilPersExp	New Orleans, LA
XV	DivAdj, EmergLv	New Orleans, LA
XW	AC/S, BOS, Host Tenant Agreement	New Orleans, LA
XX	Director, ASC-36	New Orleans, LA
XY	AC/S, BOS	New Orleans, LA
XZ	AC/S, Readiness/DivInsp MORDT	New Orleans, LA
YA	HqCo, 23dMar	Alameda, CA
YD	HqCo, 24thMar SvcCo, H&SBn, 4thFSSG	Kansas City, MO
YE	MPCo, HqBn, 4thMarDiv	Kansas City, MO
YF	HqCo, 25thMar	Twin Cities, MN
YG	HqBtry, 14thMar HqBtry, 2dBn, 14thMar BtryD, 2dBn, 14thMar	Worcester, MA Dallas, TX Dallas, TX Dallas, TX
YQ	H&SCo, 4thTkBn CoA, 4thTkBn H&SCo (-), 4thMedBn, 4thFSSG CoA, 4thMedBn, 4thFSSG MedLogCo, 4thSupBn, 4thFSSG	San Diego, CA San Diego, CA San Diego, CA San Diego, CA San Diego, CA
YU	H&SCo (-), 8thTkBn	Rochester, NY
YW	H&SCo, 4thAsltAmphibBn	Tampa, FL
YY	HQCo, 6thCommBn CommSptCo (-), 6thCommBn ElectMaintCo (-), 4thMaintBn 4thFSSG	Bronx, NY Bronx, NY Bronx, NY Bronx, NY

APPENDIX B

4th Marine Division Program Administrators (Excerpted from Ref. 14)

<u>Programmed Reserves</u>	<u>Program Administrator</u>
<u>Subhead .2710</u>	
Maintenance Reserve	AC/S, G-4
Supply Reserve	Division Supply Officer
Training Reserve	AC/S, G-3
Uncommitted CG's Reserve	AC/S, Comptroller
<u>Subhead .2730</u>	
Base Operations Reserve	AC/S, Base Operations
Uncommitted CG's Reserve	AC/S, Comptroller
<u>Subhead .2731</u>	
CG's Reserve, IDT	AC/S, Comptroller
CG's Reserve, Reserve	AC/S, Comptroller
Clothing	
School Tour/Spec Tour Reserve	AC/S, G-3

APPENDIX C

4th Marine Division Decision Units Managers

<u>Decision Unit</u>	<u>O&M,MCR (Subhead .2710)</u>	<u>Manager</u>
70	Maintenance of Equipment	AC/S, G-4 (MMO)
71	Operations/Administration	AC/S, G-1/AC/S, Read
72	Training	AC/S, G-3 (Trng)
73	Medical/Dental	AC/S, G-4 (OPS)
75	Initial Purchase Equip- ment	Supply Officer
76	Deficiencies in Units	Supply Officer
77	Replenishment/Replace- ment T/E	Supply Officer
78	PP&P for Mount Out	AC/S, G-4 (EMB)
79	PP&P Other	Supply Officer
80	Hire Commercial Vehicles	AC/S, G-3 (Trng)
81	Administrative TAD	AC/S, Comptroller

<u>Decision Unit</u>	<u>Subhead .2730</u>	<u>Manager</u>
08	Automated Data Processing	OIC, ASC-36
09	Civilian/Military Personnel	CPO
10	Recruiting/Recruit Adver- tising	AC/S, G-1 (Manpower)
11	Public Affairs	PAO
12	Administration	AC/S, Base Ops
40	Base Communications	AC/S, Base Ops
41	Commercial Vehicle Support	AC/S, Base Ops
44	Maintenance Real Property	AC/S, Base Ops
48	Utilities Operations	AC/S, Base Ops
52	General Engineering Sup- port	AC/S, Base Ops
56	Minor Construction	AC/S, Base Ops
60	Morale, Welfare, and Re- creation Support	AC/S, G-1

<u>Decision Unit</u>	<u>Procurement Marine Corps</u>	<u>Manager</u>
89	Plant Property	AC/S, Base Ops

<u>Decision Unit</u>	<u>Subhead .2731 (Allotment)</u>	<u>Manager</u>
90	ATD Travel	AC/S, G-3 (OPS)
91	IDT Travel	AC/S, Compt
92	Reserve Clothing	Supply Officer

<u>Decision Units</u>	<u>Subhead .2731 (Planning Estimate)</u>	<u>Manager</u>
93	Special Tours (less below)	AC/S, G-3 (Trng)
94	Special Tours Pay Group 246	AC/S, G-4
95	Special Tours Pay Groups 112 and 242	AC/S, G-3
96	Special Tours Pay Group 250	AC/S, G-1

<u>Decision Unit</u>	<u>Subhead .2731 (Planning Estimate)</u>	<u>Manager</u>
97	School Tours	AC/S, G-3 (Trng)

<u>Decision Unit</u>	<u>Subhead .2710 (TOT)</u>	<u>Manager</u>
98	Transportation of Things (O&M,MCR)	AC/S, G-4 (Embark)

<u>Decision Unit</u>	<u>Subhead .2770 (TOT)</u>	<u>Manager</u>
99	Transportation of Things (O&M,MC)	AC/S, G-4 (Embark)

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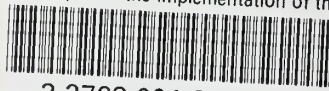
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